

EXHIBIT 7

EXHIBIT 7

PART 3 of 5

10060220-1

-19-

switches.

20. A method in accordance with claim 19, further comprising operating the at least one multichip module at a speed of at least 100 MHz.

21. A method in accordance with claim 19, further comprising operating the multichip module at a temperature of at least 125° C.

22. A method in accordance with claim 19, further comprising mounting each of the at least one multichip module directly on the probe card.

23. A method in accordance with claim 19, further comprising mounting each of the at least one multichip module directly on the probe card, operating the multichip module at a temperature of at least 125° C, and operating the at least one multichip module at a speed of at least 100 MHz.

10060220-1

-20-

Abstract

Apparatus is for processing signals between a tester and devices under test. In one embodiment, the apparatus includes at least one multichip module. Each multichip module has a plurality of micro-electromechanical switches between a set of connectors to the tester and a set of connectors to devices under test. At least one driver is provided to operate each of the micro-electromechanical switches. A method of processing signals between a tester and devices under test is disclosed.

In an embodiment, the method includes connecting the tester and the devices under test with at least one multichip module. Each of the at least one multichip module has a plurality of micro-electromechanical switches between a set of connectors to the tester and a set of connectors to the devices under test. The method includes operating each of the micro-electromechanical switches. Other embodiments are also disclosed.

"APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY"

Inventors: Romi Mayder, et al.

Docket No.: 10060220-1

1/4

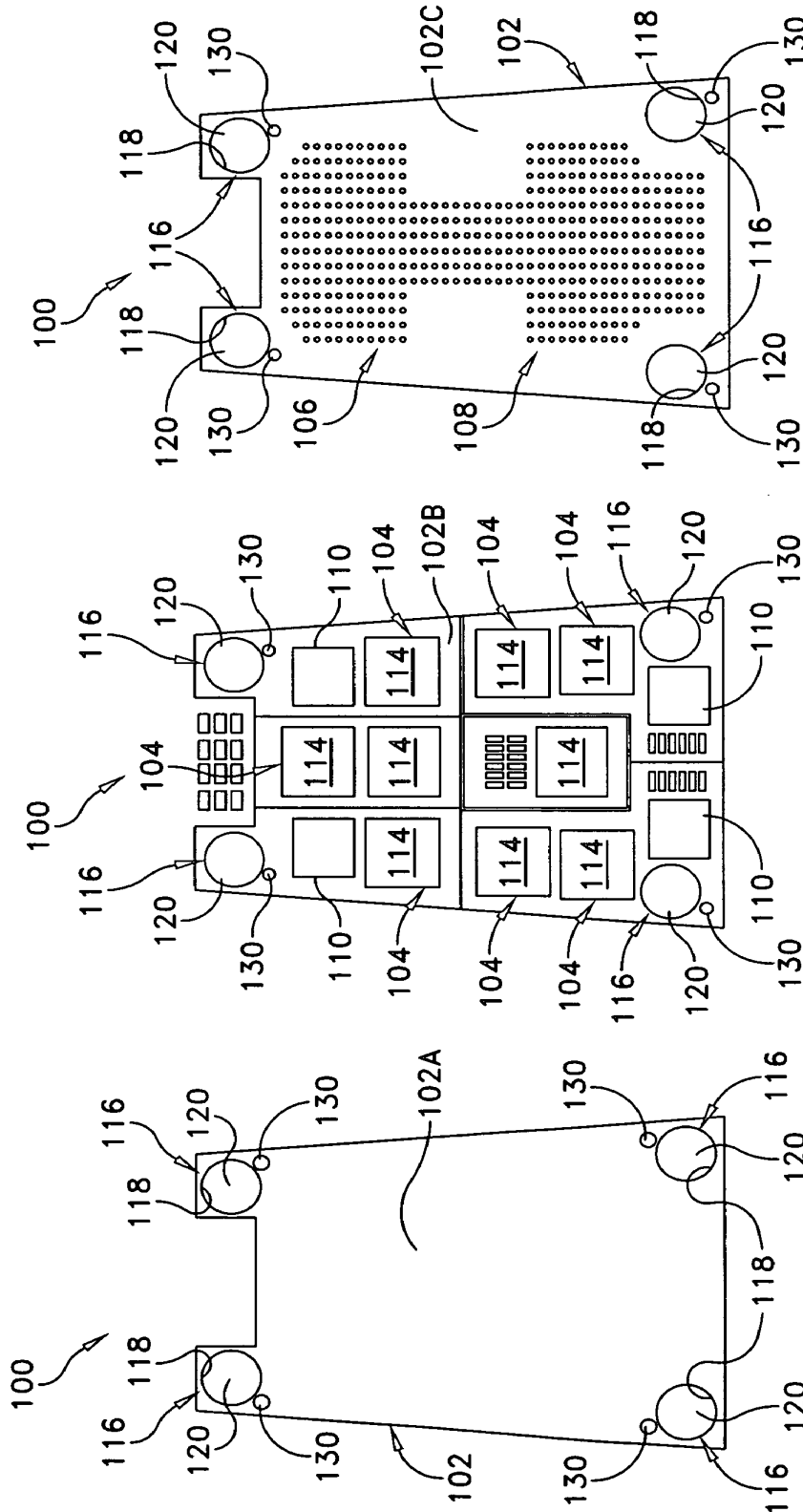


FIGURE 3

FIGURE 2

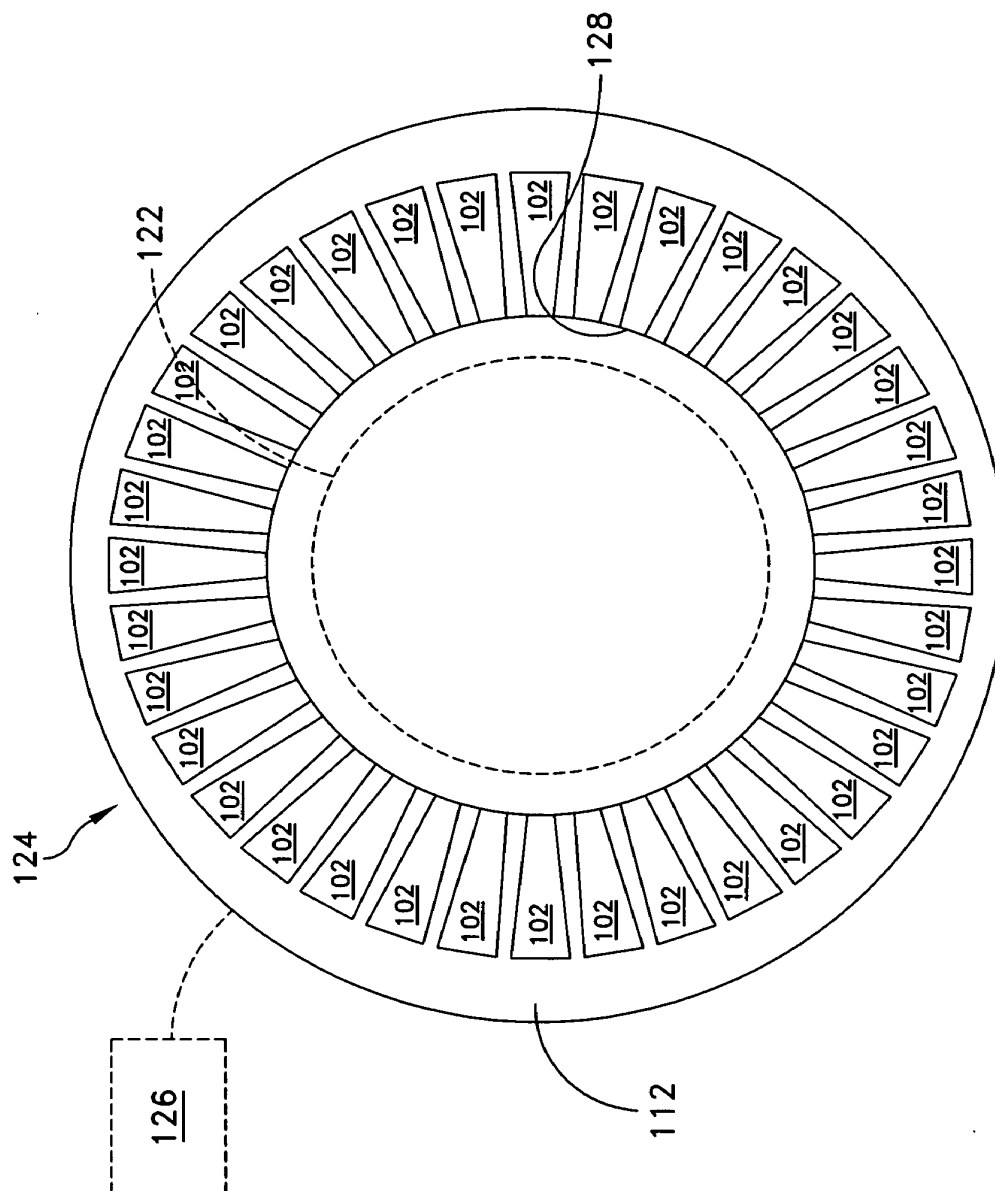
FIGURE 1

"APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY"

Inventors: Romi Mayder, et al.

Docket No.: 10060220-1

2/4



"APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY"

Inventors: Romi Mayder, et al.

Docket No.: 10060220-1

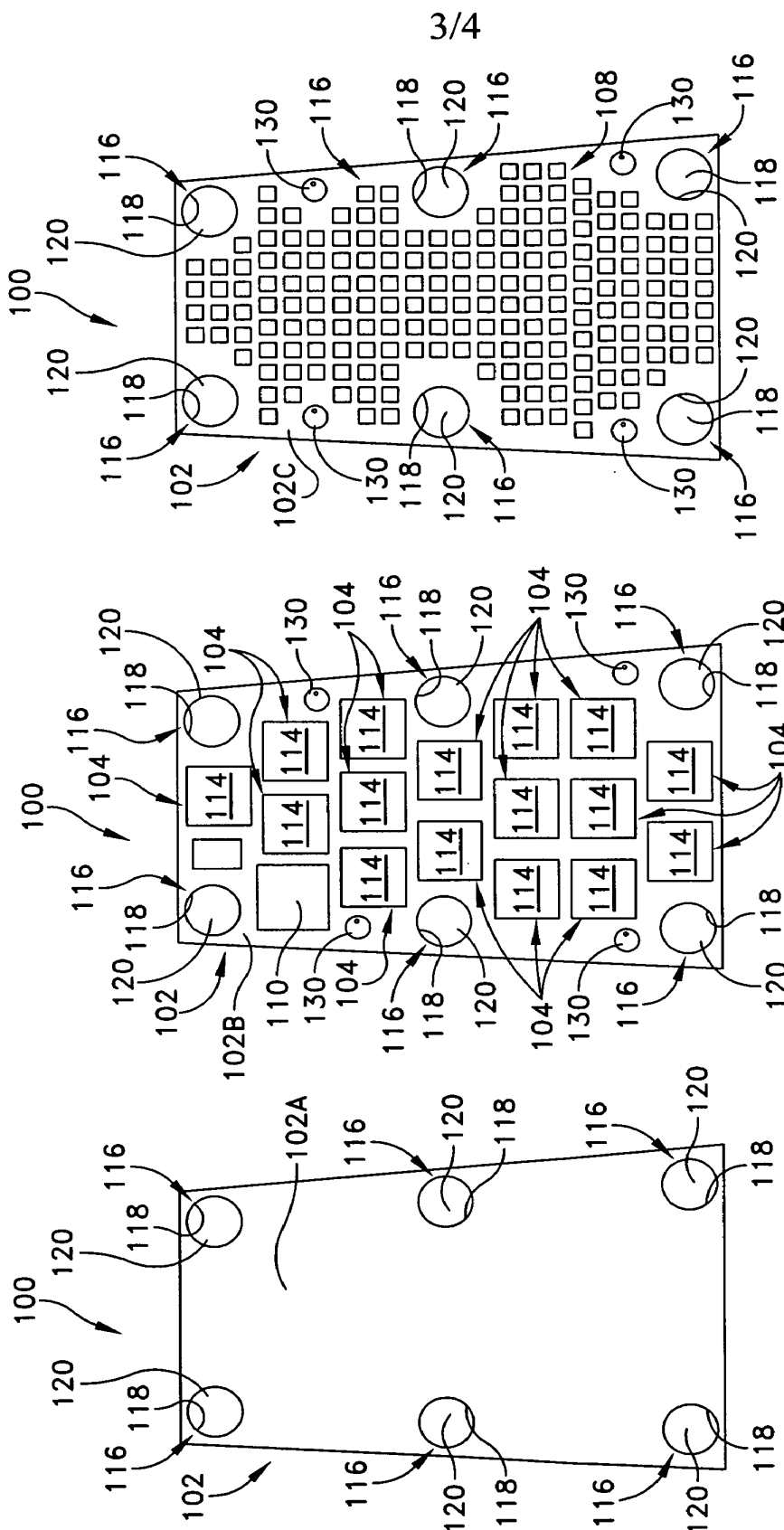


FIGURE 5

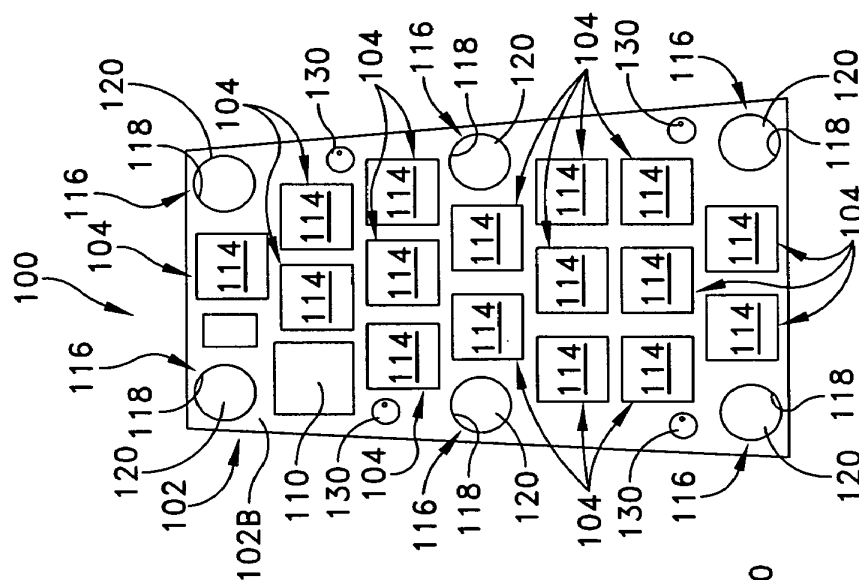


FIGURE 6

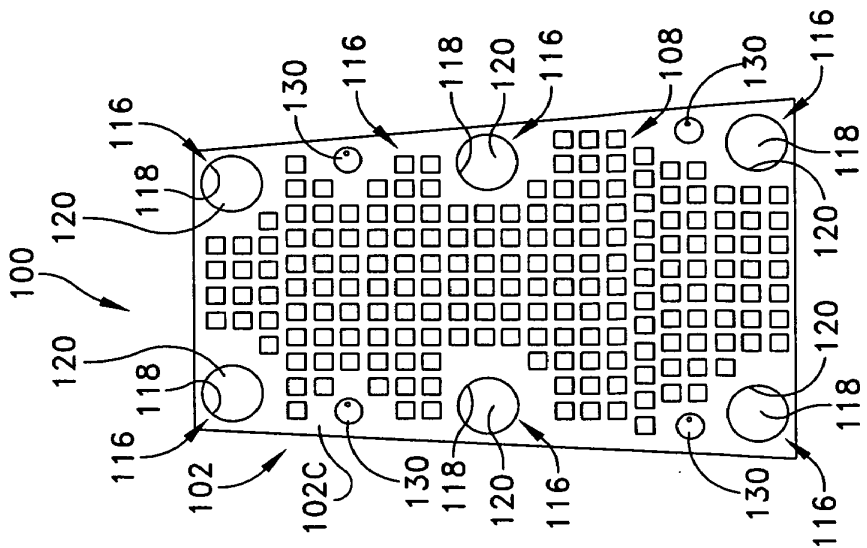


FIGURE 7

"APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY"

Inventors: Romi Mayder, et al.

Docket No.: 10060220-1

4/4

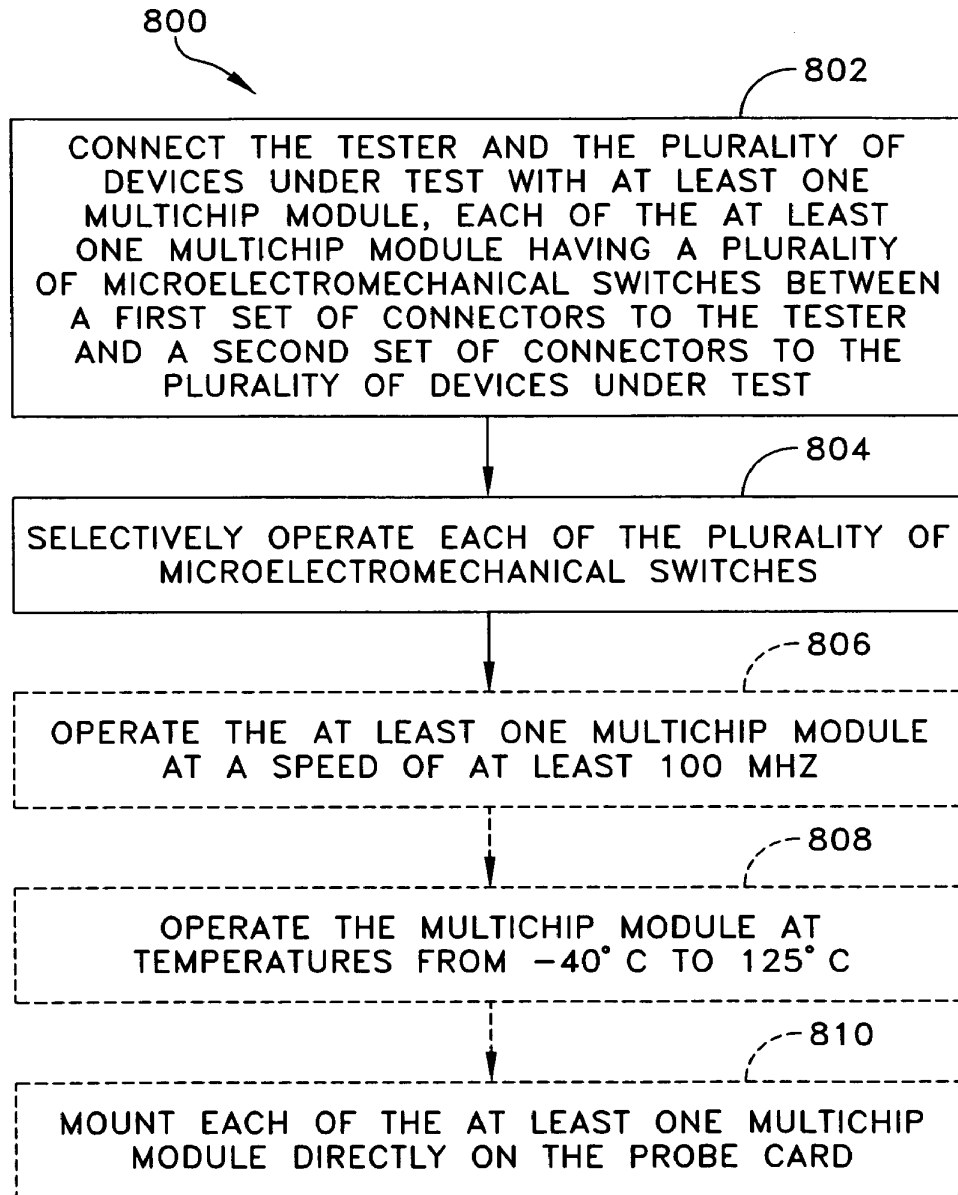


FIGURE 8

**DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION**

ATTORNEY DOCKET NO. 10060220-1

As a below named inventor, I hereby declare that:

My residence/correspondence post office address and citizenship are as stated below next to my name:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY

the specification of which is attached hereto unless the following box is checked:

☐ was filed on _____ as US Application Serial No. or PCT International Application
Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
N/A			YES: <input type="checkbox"/> NO: <input type="checkbox"/>
			YES: <input type="checkbox"/> NO: <input type="checkbox"/>

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE
N/A	

U. S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS (patented/pending/abandoned)
N/A		

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: PRACTITIONERS ASSOCIATED WITH CUSTOMER NUMBER 022878.

Send Correspondence to :

Direct Telephone Calls To:

Customer Number **022878**AGILENT TECHNOLOGIES, INC.
Legal Department, DL 429
Intellectual Property Administration
P.O. Box 7599
Loveland, Colorado 80537-0599Cynthia S. Mitchell
(970) 678-3136OR Gregory W. Osterloth
(303) 291-3204

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Romi Mayder

Citizenship: U.S.A.

Residence: San Jose, California

Correspondence Post Office Address: P.O. Box 7599, Loveland, Colorado 80537-0599


Inventor's SignatureApr. 24 2006
Date

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

04/27/2006 HLE333 00000038 501078 11410699

01 FC:1011	300.00 DA
02 FC:1111	500.00 DA
03 FC:1311	200.00 DA
04 FC:1201	200.00 DA
05 FC:1202	150.00 DA

PTO-1556
(5/87)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875 Effective December 8, 2004

Application or Doc# Number

H910699

APPLICATION AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY

OR

OTHER THAN
SMALL ENTITY

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(d), (p), or (q))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(i))	29 minus 20 =	9
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4 minus 3 =	1
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

RATE (\$)	FEE (\$)
N/A	150.00
N/A	\$250
N/A	\$100
X\$ 25 =	
X100 =	
+180=	
TOTAL	

RATE (\$)	FEE (\$)
N/A	300.00
N/A	\$500
N/A	\$200
X\$50 =	150
X200 =	200
+360=	
TOTAL	1850

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED - PART II

(Column 1)

(Column 2)

(Column 3)

SMALL ENTITY

OR

OTHER THAN
SMALL ENTITY

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(i))	*	Minus **	=
Independent (37 CFR 1.16(h))	*	Minus ***	=
Application Size Fee (37 CFR 1.16(s))			
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			

RATE (\$)	ADDITIONAL FEE (\$)
X\$ 25 =	
X100 =	
+180=	
TOTAL ADD'L FEE	

RATE (\$)	ADDITIONAL FEE (\$)
X\$50 =	
X200 =	
+360=	
TOTAL ADD'L FEE	

(Column 1)

(Column 2)

(Column 3)

RATE (\$)

ADDITIONAL FEE (\$)

RATE (\$)

ADDITIONAL FEE (\$)

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(i))	*	Minus **	=
Independent (37 CFR 1.16(h))	*	Minus ***	=
Application Size Fee (37 CFR 1.16(s))			
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			

RATE (\$)	ADDITIONAL FEE (\$)
X\$ 25 =	
X100 =	
+180=	
TOTAL ADD'L FEE	

RATE (\$)	ADDITIONAL FEE (\$)
X\$50 =	
X200 =	
+360=	
TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1460, Alexandria, VA 22313-1450.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/410,699	04/24/2006	Romi Mayder	10060220-1

CONFIRMATION NO. 4586

NOTICE OF INFORMAL APPLICATION

This application is considered to be informal since it does not comply with the regulations for the reason(s) indicated below. The period within to correct the informalities noted below and avoid abandonment is set in the accompanying Office action.

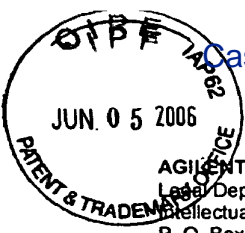
Items Required To Avoid Processing Delays:

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

A new oath or declaration, identifying this application number is required. The oath or declaration does not comply with 37 CFR 1.63 in that it:

- does not identify the citizenship of each inventor.

OFFICE COPY



AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P. O. Box 7599
Loveland, Colorado 80537-0599

ATTORNEY DOCKET NO. 10060220-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Romi Mayder, et al.

Serial No.: 11/410,699

Examiner: Not Yet Assigned

Filing Date: April 24, 2006

Group Art Unit: Unknown

Title: APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- ☐ Response/Amendment ☐ Petition to extend time to respond
☐ New fee as calculated below ☒ Submission of Supplemental Declaration and Power of Attorney
☒ No additional fee (Address envelope to "Mail Stop Amendments")
☐ Other: (Fee \$)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	23	MINUS	23	= 0	X 50	\$ 0
INDEP. CLAIMS	4	MINUS	4	= 0	X 200	\$ 0
<input type="checkbox"/> FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ 360	\$ 0
EXTENSION FEE	1 ST MONTH 120.00 <input type="checkbox"/>	2 ND MONTH 450.00 <input type="checkbox"/>	3 RD MONTH 1020.00 <input type="checkbox"/>	4 TH MONTH 1590.00 <input type="checkbox"/>		\$ 0
OTHER FEES						\$ 0
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 0

Charge \$ 0 to Deposit Account 50-1078. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 50-1078 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 50-1078 under 37 CFR 1.16, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this transmittal letter is enclosed.

Respectfully submitted,

Romi Mayder, et al.

By James A. Sheridan
James A. Sheridan
Attorney/Agent for Applicant(s) 6/1/06

I hereby certify that this correspondence is being Deposited with the United States Postal Service as First class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: June 1, 2006

Typed Name: Chasity C. Rossum

Signature: Chasity C. Rossum

Reg. No. 43,114

Date: June 1, 2006

Telephone No. (303) 291-3200



AGILENT TECHNOLOGIES, INC.
Legal department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, Colorado 80537-0599

ATTORNEY DOCKET NO. 10060220-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Romi Mayder, et al.

Serial No.: 11/410,699

Examiner: Not Yet Assigned

Filing Date: April 24, 2006

Group Art Unit: Unknown

Title: APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS
BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT
HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE
ARRAY

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

**SUBMISSION OF SUPPLEMENTAL
DECLARATION AND POWER OF ATTORNEY**

Sir:

Upon review of the Declaration and Power of Attorney originally filed on April 24, 2006, submitted herewith is a supplemental Declaration and Power of Attorney.

Applicants note that the Declaration and Power of Attorney originally filed on April 24, 2006 does not identify the citizenship of two of the inventors, specifically Edmundo Dela Puente and John Andberg. Applicants respectfully request entry of the supplemental Declaration and Power of Attorney.

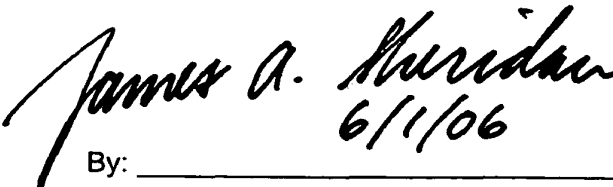
Respectfully submitted,

Romi Mayder, et al.

I hereby certify that this correspondence is being deposited in the United States Postal Service as First Class mail address to the United States Patent and Trademark Office, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: June 1, 2006

By: 
Chasity C. Rossum


By: _____

James A. Sheridan

Registration No. 43,114

Date: June 1, 2006

Telephone No.: (303) 291-3200

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Page 1 of 2

Rev 09/05 (DocPwr)

Full Name of Inventor: Romi Mayder
 Residence: San Jose, California
 Correspondence Post Office Address: P.O. Box 7599, Loveland, Colorado 80537-0599
 Date: May 09, 2006
 Citizenship: U.S.A.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Send Correspondence to: **AGILENT TECHNOLOGIES, INC.**
 Legal Department, DL 429
 Intellectual Property Administration
 P.O. Box 7599
 Loveland, Colorado 80537-0599
 Customer Number **022878**
 Direct Telephone Calls To: **Cynthia S. Mitchell** (970) 679-3136 OR **Gregory W. Osterloth** (303) 291-3204

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: PRACTITIONERS ASSOCIATED WITH CUSTOMER NUMBER 022878.

APPLICATION SERIAL NUMBER	FILING DATE	STATUS (patented/pending/abandoned)
N/A		

U.S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE
N/A	

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
N/A			YES: <input type="checkbox"/> NO: <input type="checkbox"/>

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Number 11/410699 and was amended on _____ (if applicable).

[x] was filed on April 24, 2008 as US Application Serial No. or PCT International Application

the specification of which is attached hereto unless the following box is checked:

APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY

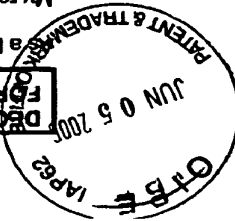
I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

My residence/correspondence post office address and citizenship are as stated below next to my name:

I, below named inventor, I hereby declare that:

ATTORNEY DOCKET NO. 10060220-1

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION



**DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION (Continued)**

ATTORNEY DOCKET NO. 10060220-1

Full Name of # 2 Joint Inventor: Pam Stelmacher

Residence: Cupertino, California

Correspondence Post Office Address: P.O. Box 7599, Loveland, Colorado 80537-0599

Pam Stelmacher
Inventor's Signature

Citizenship: U.S.A.

May 9, 2006
Date

Full Name of # 3 Joint Inventor: Edmundo Dela Puente

Residence: Cupertino, California

Correspondence Post Office Address: P.O. Box 7599, Loveland, Colorado 80537-0599

Edmundo Dela Puente
Inventor's Signature

Citizenship: U.S.A.

May 9, 2006
Date

Full Name of # 4 Joint Inventor: John Andberg

Residence: Santa Cruz, California

Correspondence Post Office Address: P.O. Box 7599, Loveland, Colorado 80537-0599

John Andberg
Inventor's Signature

Citizenship: U.S.A.

May 9, 06
Date

Full Name of # Joint Inventor:

Residence:

Correspondence Post Office Address:

Inventor's Signature

Date

Full Name of # Joint Inventor:

Residence:

Correspondence Post Office Address:

Inventor's Signature

Date

Full Name of # Joint Inventor:

Residence:

Correspondence Post Office Address:

Inventor's Signature

Date

Full Name of # Joint Inventor:

Residence:

Correspondence Post Office Address:

Inventor's Signature

Date

Full Name of # Joint Inventor:

Residence:

Correspondence Post Office Address:

Inventor's Signature

Date

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EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	40	tester and (switch with transistor or transistor adj switch) and controller and module and "324"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 10:59
L2	137	tester and (switch with transistor or transistor adj switch) and controller and "324"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 11:51
L3	78593	mem and switch	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 11:51
L4	110	3 and tester and relay and controller	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 11:58
L5	43	mem same switch same interposer not cell	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 11:59
L6	5	324/754.ccls. and mem same switch	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 12:00
L7	0	verlgy.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 12:13
L8	12036	agilent.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/03/27 12:13